

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: February 17, 1997  
Date Received: February 11, 1997  
Project: Metro Grab, PO #M56159  
Date Samples Extracted: February 12, 1997  
Date Extracts Analyzed: February 13, 1997

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE  
FOR CHROMIUM, COPPER, NICKEL, AND ZINC  
USING METHOD 6010**

**Samples Processed Using Method 3005A**  
Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M56159	0.49	0.64	0.68	0.55
Method Blank	<0.05	<0.05	<0.05	<0.05

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: February 17, 1997

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Project: Metro Grab, PO #M56159

### QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 75791 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.49	0.48	2	0-20
Copper	mg/L (ppm)	0.64	0.63	2	0-20
Nickel	mg/L (ppm)	0.68	0.68	0	0-20
Zinc	mg/L (ppm)	0.55	0.53	4	0-20

Laboratory Code: 75791 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	0.49	97	88	80-120	10
Copper	mg/L (ppm)	5	0.64	97	84	80-120	14
Nickel	mg/L (ppm)	10	0.68	95	92	80-120	3
Zinc	mg/L (ppm)	5	0.55	95	93	80-120	2

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	92	94	80-120	2
Copper	mg/L (ppm)	5	89	91	80-120	2
Nickel	mg/L (ppm)	10	92	94	80-120	2
Zinc	mg/L (ppm)	5	93	94	80-120	1

1:30 PM

## SAMPLE CHAIN OF CUSTODY

Co: Alaskan Copper Works

## Contact

GERALD Thompson

ip Seattle WA 98134  
206) 382-8379

Date 2-11-97

PROJECT NAME

PURCHASE ORDER #

7238

METRO Gross

M 56159

(signature)

### PROJECT LOCATION

3200 6<sup>th</sup> Ave S.

### SAMPLE DISPOSAL INFORMATION



**Dispose after 30 days**



### Return Samples



### Call for Instructions


[illegible]

PRINT NAME

COMPANY

Date \_\_\_\_\_

Time

	GERALD Thompson	ACW	2-11-97	1:25
	MANUEL MARTI	F d B I	2-11-97	1:25

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D.  
Beth M. Albertson, M.S.  
Bradley T. Benson  
Kelley D. Wilt

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044

**February 17, 1997**

**INVOICE # 97ACU0217-1  
DUPLICATE COPY**

**Accounts Payable  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134**

**RE: Project Metro Grab, PO #M56159: Results of testing requested by Gerry Thompson, Project Manager for material submitted on February 11, 1997.**

**1 water sample analyzed for  
Chromium, Copper, Nickel, and Zinc  
using Method 6010 @ \$65 per sample**

**\$ 65.00**

**Amount Due .....**

**\$ 65.00**

**FEDERAL TAX ID # (b) (6)**



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**February 17, 1997**

**Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134**

**Dear Mr. Thompson:**

**Included are the results from the testing of material submitted on February 11, 1997 from your Metro Grab, PO #M56159 project.**

**We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.**

**Sincerely,**

**FRIEDMAN & BRUYA, INC.**



**Kurt Johnson  
Chemist**

**keh  
Enclosures  
ACU0217R.DOC**